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EXAMINER

ANWAH, OLISA

ART UNIT PAPER NUMBER

2614

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/932,873

Applicant(s)

SUGUKAWA ET AL.

Examiner

Olisa Anwah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 1 and 8-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-7 and 16-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2, 3 and 5-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Larsson combined with Bjorndahl, WIPO International Publication Number: WO 99/41876 (hereinafter Bjorndahl) in further view of Beamish et al, U.S. Patent Application Publication No. 2004/0209598 (hereinafter Beamish).

Regarding claim 2, Larsson discloses an information exchange method of exchanging information between a communication terminal (see slave BT unit from paragraph 0005) having a short distance wireless communication device (see Bluetooth radio chip from paragraph 0004) and a host (see master from paragraph 0005) having another short distance wireless communication device (see Bluetooth radio chip from paragraph 0004) and an information acquisition device (at paragraph 0014,

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Larsson states that the BT unit that initiated the INQUIRY can collect the BD\_ADDR), the method comprising:

acquiring identification information identifying the communication terminal (see BD\_ADDR and AM\_ADDR from paragraph 0007) by the information acquisition device;

controlling the short distance wireless communication device (see Bluetooth radio chip from paragraph 0004) of the host (see master from paragraph 0005) to transmit a page message that contains the identification information (at paragraph 0007, Larsson indicates that the master uses the AM\_ADDR to poll a particular slave in the piconet) and causes the communication terminal (see slave BT unit from paragraph 0005) to operate in a hopping pattern (see paragraph 0014) determined by the host (see master from paragraph 0005) being a master device; and

transmit a request (see INQUIRY RESPONSE message from paragraph 0014), following the page message (INQUIRY message of paragraph 0013), for establishing a short distance wireless communication link (see Bluetooth from paragraph 0004);

generating a connection between the host (see master from paragraph 0005) and the communication terminal (see slave BT unit from paragraph 0005) over the short distance wireless communication link established in response to the request (see paragraph 0017); and

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initiating an information exchange using the connection  
(see traffic from paragraph 0004).

With further respect to claim 2, Larsson does not teach said acquiring includes another medium for reading information from the communication terminal. However Bjorndahl teaches this limitation (see abstract). Hence, it would have been obvious to one of ordinary skill in the art to modify Larsson with the link of Bjorndahl. This modification would have improved the system's reliability by minimizing exposure of sensitive information as suggested by Bjorndahl (see abstract).

Again on the issue of claim 2, the combination of Larsson and Bjorndahl fails to teach the other medium of acquiring functions by reading a bar code on said communication terminal, the bar code indicating said identification information. Nonetheless Beamish discloses this limitation (see paragraph 0054). As a result, it would have been obvious to one of ordinary skill in the art to further modify the combination of Larsson and Bjorndahl with the bar code reader of Beamish. This modification would have improved the system's reliability by minimizing exposure of sensitive information as suggested by Bjorndahl (see abstract).

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Regarding claim 3, see paragraph 0054 of Beamish.

Regarding claim 5, see Figure 2 of Bjorndahl.

Regarding claim 6, see Figure 2 of Bjorndahl.

Regarding 7, see paragraph 0054 of Beamish.

3. Claims 16 and 19 are rejected under 35 U.S.C § 103(a) as being unpatentable over Larsson combined with Swartz et al, U.S. Patent Application Publication No. 2005/0040230 (hereinafter Swartz) and Bjorndahl in further view of Beamish.

As per claim 16, Larsson discloses an apparatus configured to exchange information with a communication terminal (see slave BT unit from paragraph 0005) and provide predetermined services to users who carry the communication terminal (see telephones, PDAs, laptop computers, digital cameras, video monitors, printers, fax machine, e.t.c from paragraph 0004), the apparatus comprising:

a short distance wireless communication device (see Bluetooth radio chip from paragraph 0004);

an identification information acquisition device (at paragraph 0014, Larsson states that the BT unit that initiated the INQUIRY can collect the BD\_ADDR) configured to acquire identification information (see BD\_ADDR and AM\_ADDR from

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paragraph 0007) identifying the communication terminal (see slave BT unit from paragraph 0005);

a communication controller configured to control the short distance wireless communication device (see Bluetooth radio chip from paragraph 0004) to,

transmit a page that contains the identification information (at paragraph 0007, Larsson indicates that the master uses the AM\_ADDR to poll a particular slave in the piconet) and causes the communication terminal to operate in a hopping pattern (see paragraph 0014) determined by the short distance wireless communication device being a master device (see master from paragraph 0005), and

transmit a request (observe the PAGE procedure from paragraph 0015), following the page message (see INQUIRY message from paragraph 0015), for establishing a short distance wireless communication link (Larsson explicitly indicates a PAGE procedure is used to establish an actual connection between two BT units);

an information exchange device configured to generate a connection between the short distance wireless communication device (see Bluetooth radio chip from paragraph 0004) and the communication terminal (see slave BT unit from paragraph 0005) over the short distance wireless communication link (see

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Bluetooth connections depicted at Figures 1 and 2) established in response to the request (observe the PAGE procedure from paragraph 0015), and to initiate an information exchange (see traffic from paragraph 0004) using the connection.

Further regarding claim 16, Larsson does not teach the apparatus is a cash register, the apparatus comprising:

- a register mechanism;

- a bar code reader configured to read a bar code of a product;

- a register controller configured to control the register mechanism to perform a register processing in respect to the bar code of the product; and

- said register controller utilizing the exchanged information in said register processing and configured to provide said services.

Nonetheless, Swartz discloses these features (see Figure 4). For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Larsson with the active shopping marketing system of Swartz. This modification would allow any digital communication device to communicate over a radio interface through the use of



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a Bluetooth radio chip and its accompanying software as stated by Larsson (see paragraph 0004).

With further respect to claim 16, the combination of Larsson and Swartz does not teach said identification information acquisition device includes another medium for reading information from the communication terminal. However Bjorndahl teaches this limitation (see abstract). Hence, it would have been obvious to one of ordinary skill in the art to further modify the combination of Larsson and Swartz with the link of Bjorndahl. This modification would have improved the system's reliability by minimizing exposure of sensitive information as suggested by Bjorndahl (see abstract).

Again on the issue of claim 16, the combination of Larsson, Swartz and Bjorndahl fails to teach the other medium on the information acquisition device includes another bar code reader for reading a bar code of the communication terminal. Nonetheless Beamish discloses this limitation (see paragraph 0054). As a result, it would have been obvious to one of ordinary skill in the art to further modify the combination of Larsson, Swartz and Bjorndahl with the bar code reader of Beamish. This modification would have improved the system's

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reliability by minimizing exposure of sensitive information as suggested by Bjorndahl (see abstract).

As per claim 19, Larsson discloses an apparatus configured to exchange information with a communication terminal (see slave BT unit from paragraph 0005) and provide predetermined services to users who carry the communication terminal (see telephones, PDAs, laptop computers, digital cameras, video monitors, printers, fax machine, e.t.c from paragraph 0004), the apparatus comprising:

a short distance wireless communication device (see Bluetooth radio chip from paragraph 0004);

an identification information acquisition device (at paragraph 0014, Larsson states that the BT unit that initiated the INQUIRY can collect the BD\_ADDR) configured to acquire identification information (see BD\_ADDR and AM\_ADDR from paragraph 0007) identifying the communication terminal (see slave BT unit from paragraph 0005);

a communication controller configured to control the short distance wireless communication device (see Bluetooth radio chip from paragraph 0004) to,

transmit a page that contains the identification information (at paragraph 0007, Larsson indicates that the

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master uses the AM\_ADDR to poll a particular slave in the piconet) and causes the communication terminal to operate in a hopping pattern (see paragraph 0014) determined by the short distance wireless communication device being a master device (see master from paragraph 0005), and

transmit a request (observe the PAGE procedure from paragraph 0015), following the page message (see INQUIRY message from paragraph 0015), for establishing a short distance wireless communication link (Larsson explicitly indicates a PAGE procedure is used to establish an actual connection between two BT units);

an information exchange device configured to generate a connection between the short distance wireless communication device (see Bluetooth radio chip from paragraph 0004) and the communication terminal (see slave BT unit from paragraph 0005) over the short distance wireless communication link (see Bluetooth connections depicted at Figures 1 and 2) established in response to the request (observe the PAGE procedure from paragraph 0015), and to initiate an information exchange (see traffic from paragraph 0004) using the connection.

Further regarding claim 19, Larsson does not teach the apparatus is a cash register, the apparatus comprising:

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a register mechanism;

a bar code reader configured to read a bar code of a product;

a register controller configured to control the register mechanism to perform a register processing in respect to the bar code of the product; and

said register controller utilizing the exchanged information in said register processing and configured to provided said services.

Nonetheless, Swartz discloses these features (see Figure 4). For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Larsson with the active shopping marketing system of Swartz. This modification would allow any digital communication device to communicate over a radio interface through the use of a Bluetooth radio chip and its accompanying software as stated by Larsson (see paragraph 0004).

With further respect to claim 19, the combination of Larsson and Swartz does not teach said identification information acquisition device includes another medium for identifying the communication terminal. However Bjorndahl

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teaches this limitation (see abstract). Hence, it would have been obvious to one of ordinary skill in the art to further modify the combination of Larsson and Swartz with the link of Bjorndahl. This modification would have improved the system's reliability by minimizing exposure of sensitive information as suggested by Bjorndahl (see abstract).

Again on the issue of claim 19, the combination of Larsson, Swartz and Bjorndahl fails to teach the other medium includes an imaging device for capturing an image, and processing the image to recognize said identification information identifying the communication terminal. Nonetheless Beamish discloses this limitation (see paragraph 0054). As a result, it would have been obvious to one of ordinary skill in the art to further modify the combination of Larsson, Swartz and Bjorndahl with the bar code reader of Beamish. This modification would have improved the system's reliability by minimizing exposure of sensitive information as suggested by Bjorndahl (see abstract).

4. Claims 17 and 18 are rejected under 35 U.S.C § 103(a) as being unpatentable over Larsson combined with Swartz et al, U.S. Patent Application Publication No. 2005/0040230 (hereinafter Swartz) and Bjorndahl in further view of Beamish.

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As per claim 17, Larsson discloses an apparatus configured to exchange information with a communication terminal (see slave BT unit from paragraph 0005) and provide predetermined services to users who carry the communication terminal (see telephones, PDAs, laptop computers, digital cameras, video monitors, printers, fax machine, e.t.c from paragraph 0004), the apparatus comprising:

a short distance wireless communication device (see Bluetooth radio chip from paragraph 0004);

an identification information acquisition device (at paragraph 0014, Larsson states that the BT unit that initiated the INQUIRY can collect the BD\_ADDR) configured to acquire identification information (see BD\_ADDR and AM\_ADDR from paragraph 0007) identifying the communication terminal (see slave BT unit from paragraph 0005);

a communication controller configured to control the short distance wireless communication device (see Bluetooth radio chip from paragraph 0004) to,

transmit a page that contains the identification information (at paragraph 0007, Larsson indicates that the master uses the AM\_ADDR to poll a particular slave in the piconet) and causes the communication terminal to operate in a hopping pattern (see paragraph 0014) determined by the

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short distance wireless communication device being a master device (see master from paragraph 0005), and

transmit a request (observe the PAGE procedure from paragraph 0015), following the page message (see INQUIRY message from paragraph 0015), for establishing a short distance wireless communication link (Larsson explicitly indicates a PAGE procedure is used to establish an actual connection between two BT units);

an information exchange device configured to generate a connection between the short distance wireless communication device (see Bluetooth radio chip from paragraph 0004) and the communication terminal (see slave BT unit from paragraph 0005) over the short distance wireless communication link (see Bluetooth connections depicted at Figures 1 and 2) established in response to the request (observe the PAGE procedure from paragraph 0015), and to initiate an information exchange (see traffic from paragraph 0004) using the connection.

Further regarding claim 17, Larsson does not teach the apparatus is a cash register, the apparatus comprising:

a register mechanism;

a bar code reader configured to read a bar code of a product;

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a register controller configured to control the register mechanism to perform a register processing in respect to the bar code of the product; and

said register controller utilizing the exchanged information in said register processing and configured to provided said services.

Nonetheless, Swartz discloses these features (see Figure 4). For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Larsson with the active shopping marketing system of Swartz. This modification would allow any digital communication device to communicate over a radio interface through the use of a Bluetooth radio chip and its accompanying software as stated by Larsson (see paragraph 0004).

With further respect to claim 17, the combination of Larsson and Swartz does not teach said identification information acquisition device includes a wireless tag receiver for receiving a signal transmitted from a wireless tag of the communication terminal. All the same, Bjorndahl discloses this limitation (see units 22, 23, 21B and 20B from Figure 2). Consequently, it would have been obvious to one of ordinary



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skill in the art to further modify the combination of Larsson and Swartz with the communication link of Bjorndahl. This modification would have improved the system's reliability by minimizing exposure of sensitive information as suggested by Bjorndahl (see abstract).

As per claim 18, Larsson discloses an apparatus configured to exchange information with a communication terminal (see slave BT unit from paragraph 0005) and provide predetermined services to users who carry the communication terminal (see telephones, PDAs, laptop computers, digital cameras, video monitors, printers, fax machine, e.t.c from paragraph 0004), the apparatus comprising:

a short distance wireless communication device (see Bluetooth radio chip from paragraph 0004);

an identification information acquisition device (at paragraph 0014, Larsson states that the BT unit that initiated the INQUIRY can collect the BD\_ADDR) configured to acquire identification information (see BD\_ADDR and AM\_ADDR from paragraph 0007) identifying the communication terminal (see slave BT unit from paragraph 0005);

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a communication controller configured to control the short distance wireless communication device (see Bluetooth radio chip from paragraph 0004) to,

transmit a page that contains the identification information (at paragraph 0007, Larsson indicates that the master uses the AM\_ADDR to poll a particular slave in the piconet) and causes the communication terminal to operate in a hopping pattern (see paragraph 0014) determined by the short distance wireless communication device being a master device (see master from paragraph 0005), and

transmit a request (observe the PAGE procedure from paragraph 0015), following the page message (see INQUIRY message from paragraph 0015), for establishing a short distance wireless communication link (Larsson explicitly indicates a PAGE procedure is used to establish an actual connection between two BT units);

an information exchange device configured to generate a connection between the short distance wireless communication device (see Bluetooth radio chip from paragraph 0004) and the communication terminal (see slave BT unit from paragraph 0005) over the short distance wireless communication link (see Bluetooth connections depicted at Figures 1 and 2) established in response to the request (observe the PAGE procedure from

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paragraph 0015), and to initiate an information exchange (see traffic from paragraph 0004) using the connection.

Further regarding claim 18, Larsson does not teach the apparatus is a cash register, the apparatus comprising:

a register mechanism;

a bar code reader configured to read a bar code of a product;

a register controller configured to control the register mechanism to perform a register processing in respect to the bar code of the product; and

said register controller utilizing the exchanged information in said register processing and configured to provided said services.

Nonetheless, Swartz discloses these features (see Figure 4). For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Larsson with the active shopping marketing system of Swartz. This modification would allow any digital communication device to communicate over a radio interface through the use of a Bluetooth radio chip and its accompanying software as stated by Larsson (see paragraph 0004).

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With further respect to claim 18, the combination of Swartz and Larsson does not teach said identification information acquisition device includes an infrared data communication device for receiving a signal transmitted from the communication terminal. All the same, Bjorndahl discloses this limitation (see units 22, 23, 21B and 20B from Figure 2). Consequently, it would have been obvious to one of ordinary skill in the art to further modify the combination of Larsson and Swartz with the communication link of Bjorndahl. This modification would have improved the system's reliability by minimizing exposure of sensitive information as suggested by Bjorndahl (see abstract).

5. Claim 4 is rejected under 35 U.S.C § 103(a) as being unpatentable over Larsson combined with Bjorndahl and Beamish in further view of Chatani, U.S. Patent No. 6,792,292 (hereinafter Chatani).

Regarding claim 4, the combination of Larsson, Bjorndahl and Beamish does not teach the bar code is electrically displayed on the communication terminal. Nonetheless Chatani discloses this limitation (see Figure 18). Hence it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the combination of Larsson,

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Bjorndahl and Beamish with the electrically displayed bar code of Chatani. This modification would have improved the system's user-friendliness by preserving the bar code.

### ***Response to Arguments***

6. Applicant's arguments have been considered but are deemed to be moot in view of the new grounds of rejection.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olisa Anwah whose telephone number is 571-272-7533. The examiner can normally be reached on Monday to Friday from 8.30 AM to 6 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on 571-272-7547. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and 571-273-8300 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.

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OA

Olisa Anwah  
Patent Examiner  
March 27, 2006



FAN TSANG  
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